Meade® Series 4000 8mm - 24mm Zoom Eyepiece (1.25")

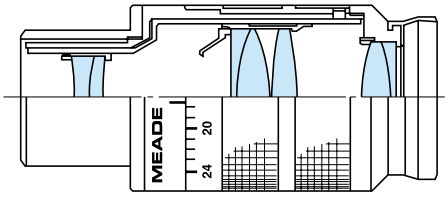
High-resolution optics that realize the full potential of the zoom format.

For years zoom eyepieces were regarded as “convenient,” but without the optical resolution required in demanding astronomical applications. The Meade Series 4000 Zoom Eyepiece has changed that impression — completely and forever.

Because, finally, this is a zoom eyepiece designed for the advanced amateur astronomer who is uncompromising in his or her optical performance specifications. Performance is fully consistent with the finest fixed focal length eyepieces.

The Meade Series 4000 Zoom is an excellent addition to telescopes of all types, brands, and price levels, whether 60mm refractor, 8" Schmidt-Newtonian, 90mm ETX, or 12" LX200GPS Schmidt-Cassegrain.

Conceived by one of the world’s leading designers of photo-optical instruments, this 7-element system provides an apparent field of 40° at the 24mm setting, increasing continuously to a 55° field at 8mm. The internal zoom optics move on smooth, precisely machined surfaces which maintain optical collimation at all zoom settings. A scale graduated in 1mm units indicates the zoom focal length in operation. All lenses are multi-coated for maximum light transmission and image contrast, while minimizing internal reflections. The chromed brass barrel is threaded for filters.



Section drawing of the Meade Zoom Eyepiece, showing layout of 7-elements.

With its high-eyepoint optics and foldable rubber eyecup the Meade Series 4000 Zoom Eyepiece is comfortably usable by eyeglass wearers; even with eyeglasses the entire field of view is easily observable.

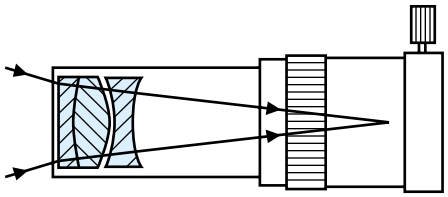
Meade® Series 4000 2x Apochromatic Barlow Lens (1.25")

Exclusive Meade 3-element, air-spaced design; thousands now in use worldwide.

#140 2x Apochromatic Barlow Lens: The most advanced Barlow lens yet developed for commercial telescopes, the Meade #140 2x Apochromatic Barlow includes a 3-element, air-spaced telenegative lens unmatched in image resolution, contrast, and color correction.

The #140 2x Apochromatic Barlow Lens multiplies eyepiece powers by a factor of two, while maintaining excellent image corrections.

Used with any telescope — refractor, reflector, or Schmidt-Cassegrain — equipped with a focuser accepting standard 1.25" barrel-diameter eyepieces, the #140 Barlow doubles



the telescope’s effective focal length, thereby doubling the effective eyepiece magnification. With a diagonal mirror or prism placed between the Barlow and an eyepiece (*e.g.,* in applications with refractors or Schmidt-Cassegrains), effective eyepiece magnification is approximately tripled.

The #140 optically complements Meade Series 4000 eyepieces *(p. 94),* while enhancing the performance of other eyepieces as well. Mechanical components are of machined aluminum and brass. Lens diameter is 28mm; clear aperture is 26mm.

The multi-coated optics of the #140 Barlow provide maximum light transmission and image contrast. Thousands of these Meade Barlow systems are now in use by advanced amateurs worldwide. There is no finer Barlow available.

Meade® Electronic Eyepiece™

For real-time transmission of lunar, planetary, and terrestrial images from your telescope to a TV monitor.

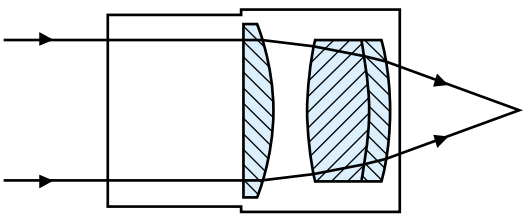
The Meade #902 Electronic Eyepiece permits transmission of live, real-time images of the Moon, planets, and terrestrial subjects from your telescope to a TV monitor, VCR, or camcorder. The eyepiece uses a CMOS detector of 320 x 240 pixels to form black-and-white images at the telescope focus; barrels are included to allow for insertion of the eyepiece into either 0.965" or 1.25" focuser sleeves. The eyepiece includes a 6 ft. cable and requires a (user-supplied) 9-volt battery; the battery fits neatly inside the eyepiece housing. A built-in control permits contrast adjustment of the image.

Perhaps the largest-selling product of its type ever developed, tens of thousands of Meade #902 Electronic Eyepieces are now in use, employing telescopes from 60mm refractors to 12" Schmidt-Cassegrains.

"The promise of video astronomy is appealing. Haven't we all wished we could record what we see in the telescope, or even view it on a television from the comfort of our living room?...the Meade Electronic Eyepiece provides an inexpensive way to enjoy video astronomy...it's hard to imagine anything more straightforward than this: Insert the [Electronic Eyepiece] into the the telescope's focuser. Connect it to a television or videocassette recorder with the supplied cable, turn it on, and enjoy the view. This is the level of simplicity that Meade has achieved with the Electronic Eyepiece. The fact that it looks, weighs, and costs about the same as a conventional eyepiece only sweetens the deal...The Electronic Eyepiece is a smartly designed unit with an RCA video output jack on the side and a thumbwheel control that turns the unit on and adjusts image contrast. The contrast-adjustment is very wide…Not only will the Meade imager show remarkable views in real time, but when used with VCR, a frame grabber and a computer, it is capable of producing fine still images as well.....the Meade Electronic Eyepiece is a lot of fun. Neighbors and friends will be impressed when you fill your TV screen with a live view of the Moon. If you have a frame grabber you can pull individual frames from a video recording and enter the world of electronic imaging...Simple to use and inexpensive, the Meade Electronic Eyepiece is a great first step for anyone looking to enter the universe of video astronomy." **— from the review in *Sky & Telescope,* February, 2003.**

Meade® Modified Achromatic Eyepieces (1.25" and .965")

These fine 3-element eyepieces offer the price-conscious amateur an excellent alternative to more sophisticated and expensive oculars. The four Modified Achromatic focal lengths shown here are an optical advancement over the traditional Kellner and yield sharp, faithful lunar, planetary, and deep-space images. All 1.25" O.D. focal lengths are multi-coated; eyepieces of .965" O.D. are coated with magnesium fluoride (MgF_2). The 40mm models of both barrel diameters provide well-corrected, wide-field images on any instrument, and with a moderate investment.



Specifications:

Design: 3-element Modified Achromatic (1.25": multi-coated; .965": MgF_2 coated)

Focal Lengths: 9, 12, 25, and 40mm

Eyepiece Barrels: 1.25" or .965", threaded for filters

Apparent Fields (approx.): 40°